AMENDMENTS TO THE CLAIMS

1. (currently amended) An electronically commutated brushless motor comprising:

a housing having a circumferential internal wall and an end wall formed near a proximal end of said housing such that said internal wall extends proximally past said end wall, said housing being closed at a distal end by a first end cap and closed at [an opposing] the proximal end by a second end cap;

at least one position sensor for sensing a position of a rotor of said motor during operation of said motor;

a bridge integrally formed with [an] said end wall, said internal wall surrounding said bridge [formed at said proximal end of said housing], said bridge having a generally hollow, distally facing interior area, said bridge configured to substantially enclose and precisely support said position sensor within [a generally hollow] said interior area [of said bridge adjacent an interior area of said housing];

a plurality of locating ribs integrally formed on said internal wall of said housing and configured to precisely situate a stator; and

wherein said locating ribs and said bridge, both being integrally formed on said housing, eliminate the possibility of misalignment of said position sensor relative to said stator during assembly of said motor.

2. (original) The motor of Claim 1 further comprising a sensor cap configured to cover a top portion of said bridge.

3. (original) The motor of Claim 2 further comprising a bearing configured to support a rotor and cover a bottom portion of said bridge.

4. (original) The motor of Claim 3 wherein said sensor cap and said bearing are further configured to form a sealed chamber around said position sensor, thereby protecting said sensor from contamination.

5. (original) The motor of Claim 3 wherein said sensor cap and said bearing are further configured to form a sealed chamber around said position sensor, thereby protecting said sensor from accidental triggering by external light sources.

6. (original) The motor of Claim 1 wherein said stator comprises a plurality of stator channels integrally formed in said stator, said channels being configured to engage said plurality of locating ribs when said stator is pressed into said housing, thereby precisely angularly situating said stator within said housing.

7. (currently amended) A method for accurately aligning a position sensor of an electronically commutated motor relative to a position of a stator of the motor, the method comprising:

forming a housing having a circumferential internal wall, a plurality of integrally formed stator locating ribs formed on the circumferential internal wall, an end wall integrally formed [at] near a proximal end of the circumferential internal wall, and a position sensor bridge integrally formed on the end wall, wherein the internal wall extends proximally past the end wall and surrounds the position sensor bridge, and the housing is closed at a distal end by a first end cap and closed at a proximal end by a second end cap;

securing at least one position sensor to a generally hollow, distally facing interior area of the position sensor bridge such that the position sensor is substantially enclosed by the position sensor bridge inside the housing; and

inserting a stator into the housing such that an angular orientation of the stator is precisely aligned by the stator locating ribs, relative to the position sensor bridge, to thereby eliminate the possibility of misalignment of the stator relative to the position sensor during assembly of the motor.

8. (original) The method of Claim 7 wherein inserting a stator comprises pressing the stator into the housing such that the plurality of locating ribs engage a plurality of stator channels as the stator is pressed into the housing.

9. (original) The method of Claim 7 further comprising protecting the position sensor from contamination.

10. (original) The method of Claim 9 wherein protecting the position sensor from contamination comprises providing a sealed chamber around the position sensor.

11. (original) The method of Claim 10 wherein providing a sealed chamber comprises:

covering a top portion of the bridge with a sensor cap; and

covering a bottom portion of the bridge with a bearing.

12. (original) The method of Claim 7 further comprising protecting the position sensor from accidental triggering by external light.

13. (original) The method of Claim 12 wherein protecting the position sensor from accidental triggering comprises providing a sealed chamber around the position sensor.

14. (original) The method of Claim 13 wherein providing a sealed chamber comprises:

covering a top portion of the bridge with a sensor cap; and

covering a bottom portion of the bridge with a bearing.

15. (currently amended) An electronically commutated brushless motor comprising:

a housing including:

a circumferential internal wall having at least one locating rib, said circumferential internal wall being closed at a distal end by a first end cap and closed at a proximal end by a second end cap;

an [integrally formed] end wall integrally formed with said internal wall near the proximal end of said internal wall such that said internal wall extends proximally past said end wall;

at least one position sensor bridge integrally formed with said end wall and surrounded by said internal wall, said position sensor bridge having a hollow, distally facing internal area [adjacent an internal area of said housing];

a position sensor secured to said position sensor bridge so as to be substantially disposed within said hollow internal area;

a stator having a peripheral outer surface adapted to engage with said one locating rib when said stator is inserted into said housing; and

wherein said locating rib and said bridge, both being integrally formed on said housing, eliminate the possibility of misalignment of said stator relative to said position sensor during assembly of said motor.

16. (original) The motor of Claim 15 wherein said housing is configured to accurately align said position sensor relative to a position of said stator utilizing said integrally formed bridge and said plurality of integrally formed locating ribs.

17. (original) The motor of Claim 15 further comprising a sealed chamber around said position sensor, said sealed chamber comprising a sensor cap configured to cover a top portion of said bridge, and a bearing configured to support a rotor and cover a bottom portion of said bridge.

18. (original) The motor of Claim 17 wherein said sealed chamber is configured to protect said position sensor from contamination and accidental triggering by external light sources.

19. (currently amended) A housing for a brushless motor which enables a stator and at least one rotor position sensing component to be readily accurately aligned relative to each other during assembly, said housing comprising:

a circumferential wall portion forming a interior area into which a stator may be inserted, said circumferential wall portion including at least one locating member integrally formed on an internal surface thereof, and wherein said locating member is adapted to engage with a portion of a peripheral outer surface of said stator such that said stator is angularly orientated in a precise orientation within said housing when inserted into said circumferential wall portion;

an end wall integrally formed with said circumferential wall portion and defining a portion of an enclosure for said stator, said circumferential wall portion extending proximally past said end wall;

said end wall having an opening for permitting a shaft of a rotor disposed within said stator to project therethrough;

a position sensor bridge portion integrally formed with said end wall and surrounded by said circumferential wall portion, [and] said position sensor bridge being disposed adjacent said opening, said position sensor bridge having a generally hollow, distally facing interior area, said position [sensing] sensor bridge being adapted to fixedly support at least one position sensor within said hollow area [fixedly relative to

said end wall such that said position sensor is adjacent said interior area of said circumferential wall portion]; and

wherein said locating member and said position sensor bridge, both being integrally formed on said housing, eliminate the possibility of misalignment of said stator relative to said rotor during assembly of said motor.

20. (currently amended) A method for assembling a brushless motor, comprising:

providing a housing having a circumferential wall portion, at least one integrally formed locating member on an interior surface of the circumferential wall portion, an end wall having an opening, and a mounting bridge integrally formed on the end wall adjacent to the opening, said circumferential wall extending proximally past said end wall and surrounding said mounting bridge;

providing a stator having a peripheral surface adapted to engage with the locating member when the stator is inserted into the circumferential wall portion;

providing at least one position sensor for detecting a position of a shaft of a rotor disposed within the stator;

inserting the stator into the circumferential wall portion such that the peripheral surface engages with the locating member and places the stator in a precise angular orientation within the housing;

inserting the rotor into the stator such that the rotor shaft projects through the opening in the end wall and adjacent the mounting bridge;

securing the position sensor to [an] a distally facing interior wall of the mounting bridge [adjacent an interior area of the housing]; and

wherein the mounting bridge precisely angularly orientates the position sensor relative to the stator.